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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,088	02/11/2002	Frank William Miller	SENT-001	1565

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EXAMINER	
NGUYEN, HANH N	

ART UNIT	PAPER NUMBER
2668	

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/071,088	MILLER ET AL.	
	Examiner	Art Unit	
	Hanh Nguyen	2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Application filed 02/11/02*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

HANH NGUYEN
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 23, 24 are objected to because of the following informalities: a full description of IAM on lines 4 and 5 of claim 23 needs to be explained. Similar full descriptions of ACM and ANM on line 4 of claim 24 need to be explained as well. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 25-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 25, it is believed that all limitations in the claim are not described in the specification. Claims 26 and 27 are also rejected because they depend on claim 25. Examiner will reconsider the claims upon a response is made by applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vuong (US Pat. 6,765,912 B1) in view of Kalmanek Jr. et al. (US pat. 6,915,421 B1).

In claim 21, Vuong discloses a method of establishing call setup in relation to a call between calling and called parties (see fig.1; establishing a call between telephone 22 and telephone 26) over a Voice over Internet Protocol (VOIP) network (fig.1, col.3, lines 40-45; over packet-based network such as IP network), the VOIP network comprising a signaling gateway (gateway 14; fig.1), a first access switch (switch 20; fig.1) directly connecting the calling party (telephone 22, fig.1) to the VOIP network (packet-based network 12), and a second access switch (switch 18; fig.1) connecting the called party (telephone 26) to the VoIP network(packet-based network 12) through the Public Switched Telephone Network (PSTN) (see col.4, lines 4-13) and associated Signaling System Seven (SS7) network (ISUP signaling of SS7; see col.5, lines 32-38), the method comprising the steps of:

terminating the call in the first access switch (fig.5, initiate an IAM (ISUP) signaling 102); issuing a first Signaling Initiation Protocol (SIP) INVITE message from the first access switch to the second access switch (fig.5, a SIP invite request 302 is established for a call over the packet-based network 12). After receiving the first INVITE message, sending a second INVITE message (fig.5; a SIP trying response 304 is returned to gateway 14) from the second access switch to the signaling gateway; See col.8, lines 58 to col.9, line 10. Vuong does not disclose maintaining session state associated with the call in at least one of the first and second access switches; and maintaining transaction state associated with the call setup in the signaling gateway during only the pendency of the call setup transaction. Kalmanek Jr. et al. discloses maintaining session state associated with the call in at least one of the first and second access

switches (fig.1; state information for a call is sent to original network device 120 while the call is being established, in progress and the call is being released; see col.12, lines 30-40). Kalmanek Jr. et al. further discloses maintaining transaction state associated with the call setup in the signaling gateway during only the pendency of the call setup transaction (a server such as a gate controller (col.7, lines 46-50) can store (maintain) all call requests (transaction state associated with call setup) it receives for some period of time (e.g., 30 seconds); col.20, lines 55-60). Therefore, it would have been obvious to one ordinary skilled in the art to use the method of Kalmanek Jr. et al. to store or maintain the call request (transaction state) in the gateway 14 of Vuong ~~or~~ and store the call duration in the switch of Vuong's system in order to save system resources by only storing call setup or tear down information instead of an entire call. In addition, the maintaining of session state or transaction state helps identify the loss call, loss request or loss response so that the gateway can retransmit the call request.

In claim 22, Vuong discloses SIP messages received in the signaling gateway (fig.4; gateway 14 includes an interworking module 202 which performs SIP signaling (see col.8, lines 30-35) and translates the SIP into the SS7, and translating SS7 messages received in the signaling gateway into SIP (fig.4, col.7, lines 60 to col.8, line 5; module 202 translates control and bearer signaling into circuit switch format nad vice versa).

In claim 23, Vuong discloses forming an IAM message in the signaling gateway in response to the second INVITE message, and transmitting the IAM to the PSTN (fig.5, an ISUP IAM message 106 is sent to switch 18 in response to the SIP invite message; see col.8, line 65 to col.9, line 1).

In claim 24, Vuong discloses forming a first 200 OK message in the signaling gateway in response to ACM and ANM messages from the PSTN and transmitting the first 200 OK message to the second access switch(fig.5, col.9, lines 4-17; SIP Ringing response 306 is returned from gateway 16 to gateway 14 in response to ISUP ANM message 126 and ISUP ACM message 120 that are transmitted from switch 18); transmitting a second 200 OK messages from the second access switch to the first access switch (fig.5; col.9, lines 15-20; SIP OK 308 is transmitted from gateway 16 to gateway 14); and thereafter transmitting an ACK messages from the first access switch to the second access switch (fig.5, col.9, lines 25-30; gateway 14 sends a SIP ACK request 314 back to destination node).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 28-30 are rejected under 35 USC as being anticipated by Vuong (US pat. 6,765,912 B1).

In claim 28, Vuong discloses a signaling gateway (mgateway 14; fig.4) adapted for use in a Voice over Internet Protocol (VoIP), the VOIP network being connected to the Public Switched Telephone Network (PSTN), and comprising a plurality of access switches and an IP backbone, wherein the signaling gateway comprises:

a first port (physical layer 216) receiving Session Initiation Protocol (SIP) messages from an access switch via the IP backbone (packet-based network 12);

a SIP parser/generator receiving SIP messages from the first port;

a second port (fig.4, circuit network interface 224 coupled to circuit-switched network 32) receiving Signaling System Seven (SS7) messages from an SS7 network associated with the PSTN;

a SS7 protocol stack (fig.4, col.8, lines 1-5; ISUP call bearer control 218 which handles transmission and receipt of ISUP messages) receiving SS7 messages from the second port;

a translator (fig.4; module 202) receiving SIP messages (receiving bearer traffic from bearer control 210) from the SIP parser/generator (bearer control 210), directly translating the SIP messages into resulting SS7 messages, and transmitting the resulting SS7 messages to the SS7 protocol stack for subsequent transmission to the SS7 network;

wherein the translator also receives SS7 messages from the SS7 protocol stack, directly translates the SS7 messages into resulting SIP messages, and transmits the resulting SIP messages to the SIP parser/generator for subsequent transmission to the VOIP network. (

translating control and bearer signaling from SIP into circuit switched format and vice versa). See col.7, lines 60-67.

In claims 29 and 30, Vuong discloses a memory maintaining transaction state associated with a SIP and SS7 transaction messages received from the VoIP network and SS7 respectively, wherein the transaction state is maintained in memory only during the pendency of the transaction (fig.4, gateway 14 comprises a storage unit 232).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mijares et al. (US pat. (6,683,881 B1) discloses Interface between an SS7 gateway and an IP network.

Niermann (US pat. 6,920,144 B2) discloses method, system and signaling gateways as an alternative to SS7 signal transfer points.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8:30 to 4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on 571 272 3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen
Primary examiner

HANH NGUYEN
PRIMARY EXAMINER